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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/606,216
Filing Date: June 25, 2003
Appellant(s): MPR ET AL.

Mirut P. Dalal
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/13/09 appealing from the Office action mailed 7/25/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1-5, 7-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Uz (6,130,963).

Claims 6, 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Uz (6,130,963) in view of Luna (6,298,087).

Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311).

Claims 18, 20, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozcelik (5,903,311).

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. There are no amendments after final rejection.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct, as disclosed on page 12 of appellant's appeal brief.

Claims 1, 2, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Uz (6,130,963).

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Uz (6,130,963) in view of Luna (6,298,087).

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Ozcelik (5,903,311).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,903,311	OZCELIK ET AL	5-1999
6,130,963	UZ ET AL	10-2000
6,298,087	LUNA ET AL	10-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18, 20, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozcelik (5,903,311).

Regarding claim 18, Ozcelik discloses a circuit for displaying interlaced frames (col.6, ln.17-18, ln.21-23 and ln.39-40), said circuit comprising:

a memory for storing a first portion of a field (col.12, ln.35-41; Ozcelik discloses that the frame memory 514C has a capacity to store 0.53x, where the first portion, ie. top field, is stored in 0.03x capacity of the frame memory 514C);

a display engine for displaying the first portion of the field (col.12, ln.19-34; Ozcelik discloses that the first portion, ie. top field, is displayed for a frame); and

a controller for writing a second portion of the field in the memory, while the display engine displays the first portion of the field (col.12, ln.19-41; Ozcelik discloses the second portion, ie. bottom field, of the frame is written or buffered for storage while the first portion, ie. top field, is displayed, in that the first portion of the top field is displayed in that the top field displayed requires some buffering, thus, the display of the

top field does display the first portion of the top field, and while buffering the second portion of the top field during the display of the top field).

Regarding claim 20, Ozcelik discloses wherein the controller decodes the second portion of the field (col.12, ln.19-24).

Regarding claim 22, Ozcelik discloses wherein: the display engine displays the second portion of the field responsive to displaying the first portion of the field (col.12, ln.19-34); and the controller overwrites the first portion of the field with a first portion of another field while the display engine displays the second portion of the field (col.12, ln.1-18; note use of motion compensation to obtain the B-frame from data of the reference frame data I and P frames).

Regarding claim 23, Ozcelik discloses wherein the memory further comprises: a first prediction frame buffer for storing a first prediction frame (fig.5, element 514A); a second prediction frame buffer for storing a second prediction frame (fig.5, element 514B); and a delta frame buffer for storing the first portion of the field and the second portion of the field (col.12, ln.19-41, note element 514C stores the third frame, and there is 0.03x capacity of the frame buffer 514C dedicated to storing the first portion, ie. top field, and 0.5x capacity of the frame buffer 514C dedicated to storing the second portion, ie. bottom field, so delta frame buffers are implemented).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311).

Regarding claim 19, Ozcelik discloses overwriting data (col.12, ln.19-34, note data can be overwritten in element 514, as noted with the two-way arrow for indicating constant access of data memory for storage). Ozcelik does not specifically disclose the use of third and fourth portions of a frame. However, Ozcelik teaches the use of a subpicture decoder (col.7, ln.45-64, Ozcelik discloses that element 420 of figure 4 is a subpicture decoder used to decode multiple subpicture portions of image data within a frame for decoding images utilized in DVD applications, thus permitting use of first, second, third, fourth, fifth or more sections for storing multiple sections or portions of image data). Therefore, it would have been obvious to one of ordinary skill in the art to appropriately modify Ozcelik's invention for utilize frame data in that the frame data can be subdivided into multiple portions of image data as desired or needed (ie. displaying DVD imaging applications, etc.) for image storage purposes.

Regarding claim 21, Ozcelik discloses wherein: the display engine displays the second portion of the field responsive to displaying the first portion of the field (col.12, ln.19-34; Ozcelik discloses that the second portion, ie. bottom field, is displayed for a frame, responsive to the display of the first portion of the field); and the controller overwrites the first portion of the field in the memory (col.12, ln.19-34, note data can be overwritten in element 514, as noted with the two-way arrow for indicating constant

access of data memory for storage). Ozcelik does not disclose "fourth portion of the field". However, Ozcelik teaches the use of a subpicture decoder (col.7, ln.45-64, Ozcelik discloses that element 420 of figure 4 is a subpicture decoder used to decode multiple subpicture portions of image data within a frame for decoding images utilized in DVD applications, thus permitting use of first, second, third, fourth, fifth or more sections for storing multiple sections or portions of image data). Therefore, it would have been obvious to one of ordinary skill in the art to appropriately modify Ozcelik's invention for utilize frame data in that the frame data can be subdivided into multiple portions of image data as desired or needed (ie. displaying DVD imaging applications, etc.) for image storage purposes.

5. Claims 1-5, 7-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Uz (6,130,963).

Regarding claim 1, Ozcelik discloses a method for displaying frames, said method comprising: displaying a first portion of a frame (col.12, ln.19-34; Ozcelik discloses that the first portion, ie. top field, is displayed for a frame); and writing a second portion of the frame while displaying the first portion of the frame (col.12, ln.19-41; Ozcelik discloses the second portion, ie. bottom field, of the frame is written or buffered for storage while the first portion, ie. top field, is displayed).

Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of

ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claims 2 and 8, Ozcelik discloses overwriting data (col.12, ln.19-34, note data can be overwritten in element 514, as noted with the two-way arrow for indicating constant access of data memory for storage). Ozcelik does not specifically disclose the use of third and fourth portions of a frame. However, Ozcelik teaches the use of a subpicture decoder (col.7, ln.45-64, Ozcelik discloses that element 420 of figure 4 is a subpicture decoder used to decode multiple subpicture portions of image data within a frame for decoding images utilized in DVD applications, thus permitting use of first, second, third, fourth, fifth or more sections for storing multiple sections or portions of image data). Therefore, it would have been obvious to one of ordinary skill in the art to appropriately modify Ozcelik's invention for utilize frame data in that the frame data can be subdivided into multiple portions of image data as desired or needed (ie. displaying DVD imaging applications, etc.) for image storage purposes.

Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claims 3 and 9, Ozcelik discloses wherein writing the second portion of the frame further comprises: decoding the second portion of the frame (col.12, ln.19-24). Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claims 4 and 10, Ozcelik discloses wherein: the display engine displays the second portion of the field responsive to displaying the first portion of the field (col.12, ln.19-34; Ozcelik discloses that the second portion, ie. bottom field, is displayed for a frame, responsive to the display of the first portion of the field); and the controller overwrites the first portion of the field in the memory (col.12, ln.19-34, note data can be overwritten in element 514, as noted with the two-way arrow for indicating constant access of data memory for storage). Ozcelik does not disclose "fourth portion of the field". However, Ozcelik teaches the use of a subpicture decoder (col.7, ln.45-64, Ozcelik discloses that element 420 of figure 4 is a subpicture decoder used to decode multiple subpicture portions of image data within a frame for decoding images utilized in DVD applications, thus permitting use of first, second, third, fourth, fifth or more sections for storing multiple sections or portions of image data). Therefore, it would have been obvious to one of ordinary skill in the art to appropriately modify Ozcelik's invention for utilize frame data in that the frame data can be subdivided into

multiple portions of image data as desired or needed (ie. displaying DVD imaging applications, etc.) for image storage purposes.

Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claims 5 and 11, Ozcelik discloses further comprising: displaying the second portion of the frame responsive to displaying the first portion of the frame (col.12, ln.19-34); and overwriting the first portion of the frame with a first portion of another frame while displaying the second portion of the frame (col.12, ln.1-18; note use of motion compensation to obtain the B-frame from data of the reference frame data I and P frames). Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claim 7, Ozcelik discloses a circuit for displaying frames, said circuit comprising: a memory for storing a first portion of a frame (col.12, ln.35-41; Ozcelik

discloses that the frame memory 514C has a capacity to store 0.53x, where the first portion, ie. top field, is stored in 0.03x capacity of the frame memory 514C); a display engine for displaying the first portion of the frame (col.12, ln.19-34; Ozcelik discloses that the first portion, ie. top field, is displayed for a frame); and a controller for writing a second portion of the frame in the memory, while the display engine displays the first portion (col.12, ln.19-41; Ozcelik discloses the second portion, ie. bottom field, of the frame is written or buffered for storage while the first portion, ie. top field, is displayed). Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claim 12, Ozcelik discloses wherein the memory further comprises: a first prediction frame buffer for storing a first prediction frame (fig.5, element 514B); a second prediction frame buffer for storing a second prediction frame (fig.5, element 514C); and a delta frame buffer for storing the first portion of the frame and the second portion of the frame (col.12, ln.19-41, note there is 0.03x capacity of the frame buffer 514C dedicated to storing the first portion, ie. top field, and 0.5x capacity of the frame buffer 514C dedicated to storing the second portion, ie. bottom field, so delta frame buffers are implemented). Ozcelik does not specifically disclose "progressive frames".

However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Regarding claim 15, Ozcelik discloses an integrated circuit for storing decoded frames, said integrate circuit comprising: a first prediction frame buffer for storing a first frame (fig.5, element 514A); a second prediction frame buffer for storing a second frame (fig.5, element 514B); and a delta frame buffer for storing a portion of a third frame (col.12, ln.19-41, note element 514C stores the third frame, and there is 0.03x capacity of the frame buffer 514C dedicated to storing the first portion, ie. top field, and 0.5x capacity of the frame buffer 514C dedicated to storing the second portion, ie. bottom field, so delta frame buffers are implemented).

Ozcelik does not specifically disclose "progressive frames". However, Uz teaches the displaying of progressive frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

6. Claims 6, 13, 14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozcelik (5,903,311) in view of Uz (6,130,963) in view of Luna (6,298,087).

Regarding claim 6, Ozcelik does not specifically disclose wherein the progressive frame comprises a high definition television frame. However, Uz teaches the display of progressive video frames (col.4, ln.29-43; Uz discloses the decoding and displaying of progressive frames). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise (UZ col.3, ln.11-13).

Ozcelik and Uz does not disclose the term "high definition television". However, Luna teaches "high definition television" (col.2, ln.41-46). Therefore, it would have been obvious to one of ordinary skill in the art to use well known term of "high definition television" for utilizing high quality display of video data for viewing clear images for viewing in high definition monitors and televisions so as to enjoy enhanced quality images when watching movies and televised programming.

Regarding claims 13 and 16, Ozcelik discloses the first, second and third frames (col.9, ln.31-39, note first and second and third frames are disclosed, ie. I, P and B frames), and the frames are stored in buffers no more than the size of 4 megabytes (col.4, ln.55-57, note 3X or approximately 3 megabytes is needed for buffering the frame data, where X is 1,036,800 bits or approximately 1 megabyte, to store frame data). Ozcelik and Uz do not specifically disclose the use of high definition television frames with at least 1280x720 resolution. However, Luna teaches the use of high

definition television frames with at least 1280x720 resolution (col.2, ln.41-46, note HDTV frame resolution can go up to 1920x1080 resolution). Therefore, it would have been obvious to one of ordinary skill in the art to use well known term of "high definition television" with at least a resolution of 1280x720 for utilizing high quality display of video data for viewing clear images for viewing in high definition monitors and televisions so as to enjoy enhanced quality images when watching movies and televised programming.

Regarding claims 14 and 17, Ozcelik discloses the first, second and third frames (col.9, ln.31-39, note first and second and third frames are disclosed, ie. I, P and B frames), and the frames are stored in buffers no more than the size of 8 megabytes (col.4, ln.55-57, note 3X or approximately 3 megabytes is needed for buffering the frame data, where X is 1,036,800 bits or approximately 1 megabyte, to store frame data). Ozcelik and Uz do not specifically disclose the use of high definition television frames with at least 1920x1080 resolution. However, Luna teaches the use of high definition television frames with at least 1920x1080 resolution (col.2, ln.41-46, note HDTV frame resolution can go to 1920x1080 resolution). Therefore, it would have been obvious to one of ordinary skill in the art to use well known term of "high definition television" with a resolution of 1920x1080 for utilizing high quality display of video data for viewing clear images for viewing in high definition monitors and televisions so as to enjoy enhanced quality images when watching movies and televised programming.

(10) Response to Argument

Argument: The rejection to claims 1 and 7 should be reversed because Ozcelik and Uz cannot be combined to result in all of the limitations of claims 1 and 7

A. Rejection of claim 1, and Ozcelik and Uz cannot be combined to result the limitations of claims 1 and 7

On pages 12-13 of appellant's arguments in the appellant's brief, appellant discloses the summary of the rejection of claims 1 and 7, and does not present arguments other than the rejection of claims 1 and 7 should be reversed because Ozcelik and Uz cannot be combined. The examiner respectfully disagrees.

In response to applicant's argument that the combination of Ozcelik and Uz cannot be combined together, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise, as suggested in Uz's column 3, lines 11-13.

B. The interlaced frames of Ozcelik cannot be modified with the progressive frames of Uz and still meet the limitations of claims 1 and 7

Regarding appellant's arguments in lines 5-10 on page 15 of appellant's brief, appellant asserts that if the Ozcelik were modified to use the progressive images of Uz, it would not be possible for "bottom field of the frame is written or buffered for storage while the first portion, ie. top field, is displayed", since progressive frames do not have top fields and bottom fields. The examiner respectfully disagrees. Since the concept of using fields as taught in Ozcelik can be implemented, as disclosed in Ozcelik column 12, lines 19-41, the concept of using progressive frames can be applied as taught in Uz since it is well known in the art that a frame comprises of two fields, and the concept of progressive frames is well known in the art, as illustrated in Uz's column 4, lines 29-43, wherein Uz discloses the decoding and displaying of progressive frames. Thus, the teaching of Uz can be combined with Ozcelik because both Ozcelik and Uz pertain to the same video image processing environment. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for efficiently displaying high quality progressive video images while reducing noise, as suggested in Uz's column 3, lines 11-13.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Further, combining prior art elements according to known methods and devices to yield the predictable result of efficiently displaying high quality progressive video images while reducing noise, as suggested in Uz, is well known since the use of progressive frames in displaying video data is well known in the art since a frame is comprised of two fields, and that Ozcelik teaches the use of fields, thus the combination is reasonable and valid for implementation. Thus, the combination of Ozcelik and Uz is deemed to be applicable and combinable to one of ordinary skill in the art.

Thus, the combination of Ozcelik and Uz is reasonable and valid for the rejection of claims 1 and 7.

Argument: The rejection to claims 2 and 8 should be reversed because neither Ozcelik or Uz teach "overwriting the third portion of the ... frame with the second portion"

Regarding lines 8-15 on page 16 of appellant's arguments, appellant asserts that the rejection of claims 2 and 8 is in error because it fails to establish that either Ozcelik, alone, or in combination with Uz teaches, "overwriting a third portion of the progressive frame with the second portion of the progressive frame"... and that ... merely teaching overwriting and use of first, second, and third portions of the frame, does not teach overwriting the third portion with the second portion". The examiner respectfully disagrees. In column 12, lines 19-34, Ozcelik discloses that data can be overwritten in element 514, as noted with the two-way arrow for indicating constant access of data memory for storage. Thus, Ozcelik discloses overwriting data. Ozcelik does not specifically disclose the use of third and fourth portions of a frame. However, in column 7, lines 45-64, Ozcelik teaches that element 420 of figure 4 is a subpicture decoder used to decode multiple subpicture portions of image data within a frame for decoding images utilized in DVD applications, thus permitting the implementation of first, second, third, fourth, fifth or more sections for storing multiple sections or portions of image data. Since Ozcelik's invention permits the implentation of first, second, third, fourth, fifth or more sections for storing multiple sections or portions of image data, and teaches the overwriting of data, therefore, it would have been obvious to one of ordinary skill in the art to appropriately modify Ozcelik's invention for utilize frame data in that the frame data can be subdivided into multiple portions of image data as desired or needed (ie.

displaying DVD imaging applications, etc.) for image storage purposes. Ozcelik does not specifically disclose "progressive frames". However, col.4, ln.29-43, Uz discloses the decoding and displaying of progressive frames. Thus, Uz discloses the displaying of progressive frames. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ozcelik and Uz, as a whole, for obtaining the "overwriting a third portion of the progressive frame with the second portion of the progressive frame", so as to efficiently display high quality progressive video images while reducing noise, as suggested in Uz's column 3, lines 11-13.

Thus, one of ordinary skilled in the art would be compelled to combine the well known teachings of Ozcelik and Uz, as a whole, for obtaining the limitations of claim 2 and 8.

Argument: The rejections to claims 13 and 14 should be reversed the proposed combination of Ozcelik and Uz could not be combined with Luna to teach the limitations of claims 13 and 14

Regarding lines 8-11 on page 18 of appellant's arguments, appellant asserts that the combination of Luna with Ozcelik and Uz is in error because if Ozcelik and Uz were modified to use high definition television, it would no longer be the case that "3 megabytes is needed for buffering the frame data". The examiner respectfully disagrees. One of ordinary skill must consider the applied references as a whole, not individually. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In column 9, lines 31-39, Ozcelik discloses the first, second and third frames are disclosed, ie. I, P and B frames. Thus, Ozcelik discloses the first, second and third frames. And in column 4, lines 55-57, Ozcelik discloses that 3X or approximately 3 megabytes is needed for buffering the frame data, where X is 1,036,800 bits or approximately 1 megabyte, to store frame data. Thus, Ozcelik discloses the frames are stored in buffers no more than the size of 4 megabytes. Ozcelik and Uz do not specifically disclose the use of high definition television frames with at least 1280x720 resolution or 1920x1080 resolution. However, in column 2, lines 41-46, Luna discloses that HDTV frame resolution can go up to 1920x1080 resolution. Thus, Luna teaches the use of high definition television frames with at least 1280x720 resolution. Therefore, it would have been obvious to one of ordinary skill in the art to use well known term of "high definition television" with at least a resolution of 1280x720 or 1920x1080 for utilizing high quality display of video data for viewing clear images for viewing in high definition monitors and televisions so as to enjoy enhanced quality images when watching movies and televised programming. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Since Luna pertains to the same video processing environment as Ozcelik and Uz, it is reasonable for one of ordinary skill in the art to combine the teachings of Ozcelik, Uz and Luna, as a whole, to obtain the limitations of claims 13 and 14, since obtaining the resolutions of 1280x720 and 1920x1080 are well known in the art as evidenced by Luna, and applying the display resolutions of 1280x720 and 1920x1080 to obtain high definition television display for viewing is nothing novel or new in the art of display video images. Thus, the use of known techniques of displaying video data at high definition television resolutions, as taught in Luna, can be combined with the combination of Ozcelik and Uz for viewing clear images for viewing in high definition monitors and televisions so as to enjoy enhanced quality images when watching movies and televised programming.

Argument: The rejection to claim 18 should be reversed because Ozcelik does not teach all of the limitations

Regarding lines 17-21 on page 19 of appellant's arguments, appellant argues that the rejection of claim 18 is in error because Ozcelik does not teach "a controller for

writing a second portion of the field in the memory, while the display engine displays the first portion of the field". The examiner respectfully disagrees. In column 12, lines 19-41, Ozcelik discloses the second portion, ie. bottom field, of the frame is written or buffered for storage while the first portion, ie. top field, is displayed, in that the first portion of the top field is displayed in that the top field displayed requires some buffering, thus, the display of the top field does display the first portion of the top field, and while buffering the second portion of the top field during the display of the top field, thus, the second portion of the field is written in the memory while the first portion of the field is displayed. Thus, Ozcelik discloses a controller for writing a second portion of the field in the memory, while the display engine displays the first portion of the field.

(11) Evidence Appendix

There is no evidence appendix.

(12) Related Proceeding(s) Appendix

There is no related proceedings appendix. No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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